

ATTACHMENT
MITIGATION MONITORING AND REPORTING PLAN



MITIGATION MONITORING AND REPORTING PROGRAM (MMP)

STANDARD MITIGATION MONITORING PROGRAM

Placer County has adopted a standard mitigation monitoring program (Section 31.825 of the Placer County Environmental Review Ordinance) in order to implement Public Resources Code Section 21081.6. This program requires that mitigation measures recommended for discretionary projects, such as Bickford Ranch, be included in the conditions of approval is monitored by the County through a variety of permit processes as listed below.

- Development Review Committee
- Improvements Plan Approval
- Improvements Construction Inspection
- Encroachment Permit
- Final Map Recordation
- Acceptance of Project as Complete
- Building Permit Approval
- Certificate of Occupancy

The issuance of any of the listed permits or County actions which must be preceded by a verification by County staff that certain conditions of approval/mitigation measures have been met shall serve as the required monitoring for those conditions of approval/mitigation measures. The following listing includes those mitigation measures for the Bickford Ranch project which will be monitored through County staff verification of required approvals.

Land Use

- L-A** Design project elements to buffer the project from adjacent uses
- L-B** Include multi-family housing
- L-C** Limit construction of gates

Population, Employment, and Housing

- PH-A** Pay unspecified in-lieu fees
- PH-B** Construct on-site affordable residential units
- PH-C** Pay \$28,000 per unit in-lieu affordable housing fee

Public Services

- PS-A** Provide will-serve letter and participate in the Penryn/Lincoln/Sunset pipeline
- PS-B** Provide water pipeline improvements
- PS-C** Provide for increased hydraulic loading, maintenance, or special design to prevent odor and blockages in off-site sewer pipelines until flows from other sources are sufficient to ensure adequate velocity, if and when such conditions arise
- PS-D** Prepare and implement traffic and safety plan for maintenance of off-site sewer line (responsibility of pipeline owner)
- PS-E** Design off-site sewer pipeline per Placer County requirements
- PS-F** Design off-site sewer pipeline with watertight joints
- PS-G** Participate in construction of additional wastewater treatment capacity to accommodate projected flows

PS-H	Issue building permits only when sufficient wastewater treatment capacity exists or will exist at time of sewer connection
PS-I	Pay statutory fees to existing school district(s)
PS-J	Donate a site, construct, and partially equip a fire station
PS-K	Establish Fire District jurisdiction and emergency response standards for the project (responsibility of fire districts)
PS-L	Pursue single-jurisdiction fire service
PS-M	Grade driveways to slopes of 15 percent or less during roadway grading, where feasible
PS-N	Pave driveways with asphaltic concrete or concrete during roadway grading activities on driveways with slopes of 16-20 percent
PS-O	Prohibit development on lots with driveway access in excess of 20 percent

Transportation

T-A	Prepare and implement construction traffic management plans for on-site construction activities for Bickford Ranch Road and Sierra College Boulevard, and coordinate with appropriate agencies in the preparation and implementation of construction traffic management plans for required off-site improvements
T-B	Implement a community relations program during on-site construction, and coordinate with appropriate agencies in the implementation of a community relations program during construction of required on-site and off-site improvements
T-C	Pay pro-rata fair share of reconstruction of the I-80/Sierra College Boulevard Interchange
T-D	Pay pro-rata fair share to widen Sierra College Boulevard from two to four lanes from Taylor Road to I-80
T-E	Pay Placer County traffic mitigation fees
T-F	Pay pro-rata fair share of adding a second westbound left-turn lane on Taylor Road at the Sierra College Boulevard intersection
T-G	Pay pro-rata fair share of widening Sierra College Boulevard from four to six lanes from Taylor Road to Granite Drive
T-H	Pay pro-rata fair share of the cost to add shoulders and improve vertical and horizontal curves along English Colony Way
T-I	Participate in any development-based funding of solutions to I-80 congestion if adopted by Placer County
T-J	Pay pro-rata fair share of adding a second northbound left-turn lane on Sierra College Boulevard at Twelve Bridges Drive intersection
T-K	Pay pro-rata fair share of adding a westbound right-turn lane on King Road at Sierra College Boulevard intersection
T-L	Pay pro-rata fair share of adding right-turn lanes in both directions on Taylor Road at the English Colony Way intersection
T-M	Provide park-and-ride lot and two bus stops
T-N	Participate in fair share of the cost of limited transit services
T-O	Provide Class II bike lanes on Bickford Ranch Road and Lower Ranch Road
T-P	Provide signing and striping on Bickford Ranch Road at the golf cart crossings
T-Q	Work with Placer County to define an acceptable Golf Cart Crossing Plan
T-R	Construct a third lane on Sierra College Boulevard opposite the project boundaries

Air Quality

A-B	Maintain construction equipment and vehicles
A-C	Implement a construction worker trip reduction program

- A-D** Require use of low-emission construction materials and equipment where feasible
- A-E** Incorporate pedestrian, bicycle, and golf-cart oriented design
- A-F** Incorporate mixed land uses into the project design to reduce external vehicle trips
- A-G** Accommodate and encourage low-emission energy use
- A-H** Install EPA-certified wood-burning devices
- A-I** Provide public awareness materials
- A-J** Incorporate into project CC&Rs the prohibition of open burning of any kind
- A-K** Implement an off-site mitigation program to reduce 40 percent of long-term air pollutant emissions
- A-L** Provide dedicated parking spaces at the park-and-ride lot with electrical outlets for electric vehicles

Noise

- N-B** Prior to grading or improvement plan approval, develop and implement a construction equipment noise abatement program
- N-C** Develop and implement a construction traffic noise abatement program to include restriction of construction truck traffic on non-major roads
- N-D** Incorporate building setbacks and noise barriers into the proposed project design
- N-E** Inform prospective buyers of potential rail noise exposure exceeding 60 dBA L_{dn}
- N-F** Implement community park design measures to minimize potential noise impacts
- N-G** Inform potential buyers of potential community noise sources
- N-H** Restrict the timing and location of truck deliveries to the Village Commercial Center
- N-I** Require 6-foot block or masonry walls along project roadways where residential areas would fall within the 60 dBA L_{dn} contour
- N-J** Restrict business hours of operation within specified areas of the Village Commercial Center

Geologic Resources

- G-A** Comply with Placer County ordinances for all grading, drainage and construction of improvements
- G-C** Comply with the conclusions of a site-specific geotechnical investigation

Hazardous Waste/Materials

- HW-D** Comply with the recommendations of a limited groundwater investigation
- HW-E** Comply with the Placer County Department of Environmental Health requirements for preparation and filing of Emergency Response Plans and Hazardous Materials Storage and Containment Plans
- HW-F** Finalize and implement the Applicant's Golf Course Chemical Application Management Plan
- HW-G** Comply with underground storage tank regulations through the Placer County Environmental Health Department

Hydrology and Water Quality

- H-A** Prepare and implement a post-development stormwater management program
- H-B** Provide runoff rate control
- H-C** Provide retention storage
- H-G** Design runoff retention basins to promote solids settling and provide capacity for accumulated sediment

- H-H** Finalize and implement the Applicant's Lake Management Plan for constructed lakes and wetlands areas
- H-I** Design and construct improvements to protect canal water quality in accordance with PCWA standards and County requirements for a 100-foot setback
- H-J** Implement Placer County policies and ordinances related to permitting, design, construction, and maintenance of septic systems

Biological Resources

- B-B** Hire a project biologist for construction monitoring
- B-C** Implement off-site tree mitigation
- B-F** Protect riparian buffer zones
- B-N** Install bat gates at tunnel entrances
- B-Q** Develop and implement an open space management plan

Cultural Resources

- C-A** Incorporate important cultural resources into open space
- C-B** Cap resource area with layer of soil prior to construction
- C-C** Conduct data recovery excavation
- C-D** Conduct subsurface testing

Visual Resources

- V-A** Provide transition areas and buffers between residential development and natural open space
- V-B** Implement sensitive grading techniques to blend with natural setting
- V-C** Minimize grading within Meadows and Ridges development
- V-D** Apply selected lot restrictions
- V-E** Retain hill at the intersection of SR 193 and Sierra College Boulevard
- V-F** Implement lighting standards outlined in Design Guidelines
- V-G** Implement Architectural Standards resulting in reduction in glare
- V-H** Apply selected lot restrictions to other areas of concern
- V-I** Record construction envelopes on Tentative Map for all lots with slopes of 30 percent or greater
- V-J** Prohibit structures outside recorded construction envelopes on Tentative Map for all lots with slopes of 30 percent or greater
- V-K** Prohibit development on lots with 30 percent slope or greater if no construction envelope is recorded on Tentative Map

PROJECT-SPECIFIC MITIGATION REPORTING PLAN

The following mitigation measures for the Bickford Ranch project will require ongoing monitoring to insure implementation of these measures. In compliance with Section 31.840 of the Placer County Environmental Review Ordinance, the components of the specific reporting plan for this measure are listed in the attached table.

MITIGATION MEASURES REQUIRING ONGOING MONITORING

Mitigation Measure	Individual Responsible for Monitoring and/or Reporting	Individual or Organization Responsible for Verifying Compliance	Timing of Initial Action	Frequency and Duration of Monitoring	Performance Criteria	Proposed Funding
Air Quality						
<p>A-A: Provide dust controls</p> <p>The Applicant will require construction contractors for the proposed project to submit a construction emission/dust control plan to the PCAPCD prior to ground breaking. At a minimum, this plan shall include the following measures:</p> <ul style="list-style-type: none"> ■ Water exposed earth surfaces as necessary to eliminate visible dust emissions (at least one water truck will be available for every three pieces of earthmoving equipment); ■ Suspend grading operations when wind is sufficient to generate visible dust clouds. ■ Pave, use gravel cover or spray a dust control agent on all haul roads; ■ Reduce speeds on unpaved roads to 15 mph or lower (this speed must be posted); ■ Clean earthmoving construction equipment with water once daily, and clean all haul trucks leaving the site; ■ Use tarpaulins for haul trucks which travel on public streets; ■ Institute measures to reduce wind erosion when site preparation is completed; and ■ Provide paved or grass-covered areas for construction employee vehicle parking. <p>Dust controls will ensure that all roadways, driveways, sidewalks, etc. be paved as soon as possible in the construction phase.</p> <p>For project components that would not be constructed / developed immediately following the mass grading phase, the following dust control measures are also recommended:</p> <ul style="list-style-type: none"> ■ Apply chemical soil stabilizers or commence reestablishing ground cover to construction areas within 96 hours of completing grading activities. ■ Develop and implement a wind erosion monitoring program for areas which will remain inactive for extended periods; this program should at a minimum provide for weekly monitoring of inactive sites to assess the effectiveness of wind erosion controls. <p>These measures will be incorporated into the CC&Rs.</p>	Applicant	Department of Public Works	Prior to approval of improvement plans and prior to approval of CC&Rs	Daily during construction; one weekend day each week during construction periods; submit weekly reports to Department of Public Works	Ensure that all dust control measures are implemented	Applicant

Mitigation Monitoring Program (MMP)

MITIGATION MEASURES REQUIRING ONGOING MONITORING						
Mitigation Measure	Individual Responsible for Monitoring and/or Reporting	Individual or Organization Responsible for Verifying Compliance	Timing of Initial Action	Frequency and Duration of Monitoring	Performance Criteria	Proposed Funding
Noise						
<p>N-A: Restrict hours of construction activity</p> <p>Construction noise emanating from any construction activities for which a Building Permit is required is prohibited on Sundays and Federal holidays, and should only occur:</p> <p>a. Monday through Friday, between 6:00 a.m. and 8:00 p.m.</p> <p>b. Saturdays, between 8:00 a.m. and 6:00 p.m.</p> <p>This condition shall be noted in the Improvement Plans and in the Project Development Notebook.</p>	Applicant	Planning Department, Division of Environmental Health, and Department of Public Works	Prior to approval of improvement plans	Weekly during construction; submit weekly reports to Planning Department	Construction activity is restricted to specified hours	Applicant
Geologic Resources						
<p>G-B: Prepare and implement a grading and erosion control plan</p> <p>The Master Grading Plans will show all proposed grading, drainage improvement, vegetation and tree removal. Revegetation of disturbed areas and vegetation maintenance will be provided for in the Master Grading Plan. The Master Grading Plan should include:</p> <ul style="list-style-type: none"> General grading concepts, including reduction of impacts on sensitive habitat and open space, maintenance of natural character and aesthetic values, incorporation of existing drainageways and landforms, minimal disturbance of vegetation, including oak trees and soil stabilization. General guidelines for grading of hillside lots, including placement of retaining walls, consistency with geotechnical recommendations, consistency of lot drainage with the Master Drainage Plan and construction of unobtrusive interceptor ditches where necessary to reduce erosion potential. Specific grading guidelines for Meadows, Ridges and Heritage Ridge portions of the project. Guidelines for developing grading transitions, including terraces where necessary for stability and access to sloped areas. <p>An erosion control plan will be provided with the Master Grading Plan. The erosion control plan will contain Best Management Practices, including timing of grading activities to minimize soil exposure during the wet season. By October, all areas that have been graded and that will remain undeveloped during the rainy season will be revegetated with compatible native vegetation and secured from the possibility of erosion.</p> <p>Employment of measures during construction to prevent eroded soil from entering site drainageways, including: placement of hay bales or other</p>	Applicant	Department of Public Works	Prior to approval of grading plan	Daily during grading activities; weekly during construction; submit weekly reports to Department of Public Works	All elements of the grading and erosion control plan are implemented	Applicant

MITIGATION MEASURES REQUIRING ONGOING MONITORING						
Mitigation Measure	Individual Responsible for Monitoring and/or Reporting	Individual or Organization Responsible for Verifying Compliance	Timing of Initial Action	Frequency and Duration of Monitoring	Performance Criteria	Proposed Funding
acceptable materials such as sediment barriers, the installation of temporary earth berms and/or sediment traps, use of fabric silt fences, spreading hay or straw on exposed areas, development of temporary settling areas and use of other means for slowing runoff and reducing sediment loads.						
Hazardous Waste/Materials						
HW-A: Report possible contamination to EHS-HMS Prior to initiating construction, all abandoned vehicle bodies and other casual refuse on the site shall be removed and disposed of appropriately. Construction contract specifications will require that, if during the course of constructing the proposed project evidence of soil and/or groundwater contamination with hazardous material is encountered, the Applicant shall immediately contact the County Environmental Services Hazardous Materials Section. Resolution of the problem shall be to the satisfaction of Environmental Health Services and the Central Valley Regional Water Quality Control Board.	Applicant	Department of Public Works and Division of Environmental Health	Prior to construction	Weekly during construction or more frequently if required by County	Possible contamination is reported, and problem resolved	Applicant
HW-B: Comply with CDF and Penryn Fire Department requirements for temporary storage of combustible/flammable liquids at construction sites The Applicant proposes procedures to comply with the requirements of the CDF and the Penryn Fire Department. The CDF and the Penryn Fire Department have specific requirements for the temporary storage of combustible/flammable liquids at construction sites which must be followed. These requirements include inspection to verify maintenance of a vegetation break and identification of emergency shutoff valves and switches. If electrical connections are provided to these facilities, that County will additionally require permitting through the County Building Department. The Applicant shall also participate in the Community Right-to-Know program administered by the County.	Applicant	California Division of Forestry, Penryn Fire Department, Placer County Fire Department	Prior to construction	Weekly during construction	Compliance with requirements for temporary storage of combustible/flammable liquids at construction site	Applicant
HW-C: Comply with County and CDF requirements for reporting releases of hazardous materials The Applicant proposes to comply with County and CDF requirements for reporting releases of hazardous materials. If a release of hazardous materials should occur, it will be contained and reported to the CDF and County Environmental Health Department immediately. Impacted soil will be excavated and disposed of as may be required by the County.	Applicant	California Division of Forestry, Penryn Fire Department, Placer County Fire Department	During construction	Weekly during construction	Compliance with requirements for reporting releases of hazardous materials	Applicant

Mitigation Monitoring Program (MMP)

MITIGATION MEASURES REQUIRING ONGOING MONITORING						
Mitigation Measure	Individual Responsible for Monitoring and/or Reporting	Individual or Organization Responsible for Verifying Compliance	Timing of Initial Action	Frequency and Duration of Monitoring	Performance Criteria	Proposed Funding
Hydrology and Water Quality						
<p>H-D: Prepare and implement a Storm Water Pollution Prevention Plan for construction activities</p> <p>The Applicant proposes to prepare and implement a Storm Water Pollution Prevention Plan. Construction activities involving the disturbance of five or more acres are required to apply for coverage under the SWRCB's NPDES General Permit for Storm Water Discharges Associated with Construction Activities. To obtain coverage under the permit, the Applicant must submit a Notice of Intent with the required permit fee and prepare a SWPPP. The contents of the SWPPP are set forth in detail in the permit application package and include development of site-specific structural and operational BMPs to prevent and control impacts to runoff quality, measures to be implemented before each storm event, inspection and maintenance of BMPs, and monitoring of runoff quality by visual and/or analytical means. The RWQCB will issue Waste Discharge Requirements (WDRs) which set forth conditions, discharge limitations, and monitoring and inspection requirements. Development and implementation of the SWPPP is the responsibility of the Applicant and its assignees.</p>	Applicant	Department of Public Works and Division of Environmental Health	Prior to approval of improvement plans	Weekly during construction	All aspects of the Storm Water Pollution Prevention Plan are implemented	Applicant
<p>H-E: Monitor erosion and sediment control measures during construction</p> <p>The purpose of this mitigation measure is to provide a means of evaluating the effectiveness of erosion control measures and other storm water BMPs. The monitoring will be developed for, and included in, the SWPPP in accordance with the requirements of the NPDES General Permit. The monitoring program will be developed based on anticipated construction methods, sequencing, and schedule, and will be revised as appropriate for each phase of construction and when construction methods or schedule vary significantly from the proposed plan. Monitoring points may change over time as the buildout progresses, but will be selected to be representative of the project site and implemented BMPs as well as areas not protected by BMPs. Emphasis will be placed on monitoring vulnerable areas. All BMPs will be inspected before and after each rainfall and repaired and/or modified as required to control site erosion and trap sediments. Runoff sampling shall be performed during several storm events each year. Sampling should be timed to coincide with storms that generate noticeable runoff and samples shall be quantitatively tested for total suspended sediments. If the measured TSS exceeds the water quality goals or other limits imposed by the NPDES permit, immediate steps shall be taken to identify and remedy the problem.</p>	Applicant	Department of Public Works and Division of Environmental Health	Prior to approval of improvement plans	Weekly during construction, or as required by DPW	Water quality does not exceed goals or other limits of NPDES permit	Applicant

MITIGATION MEASURES REQUIRING ONGOING MONITORING						
Mitigation Measure	Individual Responsible for Monitoring and/or Reporting	Individual or Organization Responsible for Verifying Compliance	Timing of Initial Action	Frequency and Duration of Monitoring	Performance Criteria	Proposed Funding
<p>H-F: Monitor site erosion and sediment control measures for two years after implementation of final erosion control measures</p> <p>A long-term monitoring program will be developed in accordance with NPDES guidelines and incorporated into the Storm Water Management Plan. The program will be developed based on actual site drainage characteristics. Monitoring points will include all storm drain outfall pipes and pond and lake outlets and spillways. In addition, natural drainageways will be examined before and after each rainy season and measures implemented to repair and control identified areas of erosion, incising or head cutting. Emphasis should be placed on vulnerable areas (i.e., those exhibiting steep slopes and/or relatively erodible soil types).</p>	Applicant	Department of Public Works and Division of Environmental Health	Prior to approval of SWMP	As identified in SWMP	Long-term effectiveness of erosion and sediment control measures is verified	Applicant
<p>H-K: Notify Placer County Department of Environmental Health and affected property owners if off-site sewer pipeline breaks</p> <p>For any existing wells within 50 feet of the proposed sewer alignment (or in cases where the DWR's standards for underlying soil type are not satisfied), the Applicant will provide for annual sampling and quantitative testing to determine levels of fecal coliform and nitrates present in those wells. Provision will be made for notifying the property owner of the results by the Placer County Environmental Health Department. Each potentially affected well will be tested prior to construction of the sewer to establish baseline conditions. Upon conveyance of the sewer to the JPA or other local agency, the responsibility for annual monitoring will revert to that agency.</p>	Owner of Sanitary Sewer	Division of Environmental Health	Break in off-site sewer pipeline	Whenever a break occurs	Notifications are promptly made	Owner of Sanitary Sewer
Biology Resources						
<p>B-A: Implement the Applicant's oak forest conservation and revegetation plan</p> <p>The plan will require replacement of approximately 10,653 oak trees at a ratio of 2:1 using native oak trees grown from acorns collected onsite or in the immediate vicinity. A total of approximately 21,200 trees will be planted at an average density of 100 trees per acre. Plantings will be installed within two years of tree removal. The plan will be developed and implemented in cooperation with the CDFG, U.S. Department of Agriculture Natural Resource Conservation Service, the California Department of Forestry and Fire Protection, and the University of California Cooperative Extension.</p> <p>Planting sites will be indicated on a project site map and will include areas within all proposed Bio Filter zones, the proposed nature area in Bickford Ranch Park, along selected portions of the project site edges, between natural open space areas and roads, in Tower Park, and in additional areas of existing oak woodland where young trees do not currently exist. Site selection criteria will include slope aspect, soil conditions, accessibility for maintenance and monitoring, irrigation water availability, potential for</p>	Applicant	Planning Department	Within 2 years of tree removal	Annually for 5 years	Minimum 80 percent survival rate after 5 years	Applicant

Mitigation Monitoring Program (MMP)

MITIGATION MEASURES REQUIRING ONGOING MONITORING						
Mitigation Measure	Individual Responsible for Monitoring and/or Reporting	Individual or Organization Responsible for Verifying Compliance	Timing of Initial Action	Frequency and Duration of Monitoring	Performance Criteria	Proposed Funding
<p>ecosystem enhancement, and potential for prescribed burning to prepare and manage planting sites.</p> <p>Species to be planted will be native oaks and riparian species, including interior live oak, blue oak, California sycamore, willows, Fremont cottonwood, California buckeye, big-leaf maple, flowering ash, and native shrubs. Revegetation size stock (2 by 2 by 10-inch containers) will be used for plantings.</p> <p>Only plants installed during the dry season (between mid-March and mid-November) will be irrigated. The Applicant's staff will monitor the irrigation systems for damage. Maintenance of all plantings will include biannual fertilization, spring and summer weed control, and replacement of damaged or dead plants.</p> <p>Plantings will be required to meet a minimum survival rate of 80 percent at the end of a five-year establishment period. If this rate is not met at the end of the five years, replanting and continued monitoring will be conducted. Monitoring of the replacement plantings by the Applicant's staff will be conducted annually for a minimum of five years to collect survival and growth data and provide photographic documentation of tree growth. An annual inventory and inspection of the growth and condition of all plantings may be conducted annually by a qualified arborist hired by Placer County. A meeting to report on research and need for mitigation refinements will be conducted annually for five years following the planting.</p> <p>Additional habitat conservation programs to be developed with the University of California Cooperative Extension, University of California at Davis, and Sierra College will include an inventory of natural open space areas to assess potential as habitat enhancement sites, an avian habitat improvement program, and a fire-safe fuel management program.</p>						
<p>B-D: Implement a tree protection plan</p> <p>The Applicant will develop and implement a tree protection plan to minimize direct and indirect impacts on oaks and other native trees that are to be retained on the project site. The elements of this plan will be included as standards in the tentative map conditions and, where applicable, in the CC&Rs for homeowners on the project site. At a minimum, the plan will include the following measures:</p> <ul style="list-style-type: none"> ■ If the proposed construction area for an individual lot matches that shown in the development notebook on file with Placer County, the Applicant's proposed mitigation will be sufficient, and no further tree mitigation will be required. If the proposed construction area for an individual lot differs from the development notebook, a final tree count within the new construction area will be prepared to identify all trees with a DBH of 6 inches or more. For mitigation of removing any trees 	Applicant	Planning Department and Department of Public Works	Prior to approval of improvement plans	Prior to grading during construction	All elements of the tree protection plan are implemented	Applicant

MITIGATION MEASURES REQUIRING ONGOING MONITORING

Mitigation Measure	Individual Responsible for Monitoring and/or Reporting	Individual or Organization Responsible for Verifying Compliance	Timing of Initial Action	Frequency and Duration of Monitoring	Performance Criteria	Proposed Funding
<p>in excess of those identified in the Applicant's tree removal plan, the home builder will pay into either the Placer County Tree Preservation Fund or into a mitigation fund to be established by the Applicant and used to plant additional native trees onsite. Home builders owning a cluster of lots may remove the net total of trees for the lots as identified in the Applicant's tree removal plan. Any additional trees removed will be mitigated by payment into either the County's Tree Preservation Fund or a mitigation fund for on-site plantings.</p> <ul style="list-style-type: none"> ■ During construction on the project site, measures will be taken to protect trees, including erecting orange construction barrier fencing, that will remain for the duration of construction activity, at least one foot outside the dripline of each tree or groves of trees to be retained; minimizing trenching for installation of utility lines; and conducting by hand any work within driplines of trees to be retained. ■ Irrigation and other potential sources of runoff associated with the constructed project will be diverted away from oak trees retained within all areas outside of the designated natural open space. To protect oaks from fungal root infection, drainage features will be constructed to intercept runoff from development upslope of the retained trees. ■ Before any tree removal following home construction, homeowners will be required to obtain approval from the Homeowners Association and a permit from Placer County for any protected trees. ■ Homeowners will be provided with information regarding the care of native trees and landscaping measures to use beneath oak trees. An example of such literature includes Living Among the Oaks, a publication of the University of California Cooperative Extension, Natural Resources Program. ■ Construction of all equestrian, bicycle, and pedestrian trails, in particular the trails to be constructed within the natural open space, will avoid removal of protected trees, except where infeasible. 						
<p>B-E: Implement the Applicant's wetland preservation and impact plan</p> <p>All wetland mitigation, with the exception of vernal pool mitigation, will occur on-site within the natural open space in the Meadows community area. Creation of 12.29 acres of wetland mitigation is proposed, including 8.49 acres of seasonal wetland/emergent marsh/riparian habitats and 3.80 acres of emergent marsh wetland along the fringe of the proposed lakes. An additional 15.07 acres of open water will be created within the seven constructed lakes. Upon construction of the wetland habitat, an as-built map will be created and submitted to the Corps. Annual monitoring will commence after the first growing season and continue for five years.</p>	Applicant	Planning Department	Prior to approval of Tentative Map	Annually for 5 years	All elements of the wetland preservation and impact plan are implemented	Applicant

Mitigation Monitoring Program (MMP)

MITIGATION MEASURES REQUIRING ONGOING MONITORING						
Mitigation Measure	Individual Responsible for Monitoring and/or Reporting	Individual or Organization Responsible for Verifying Compliance	Timing of Initial Action	Frequency and Duration of Monitoring	Performance Criteria	Proposed Funding
<p>Annual monitoring reports will be submitted to the Corps.</p> <p>In addition, the Applicant's wetland preservation plan will include the following components:</p> <ul style="list-style-type: none"> ■ Establishment of vegetated wetland preservation easements of at least 50 feet and up to 100 feet around wetlands within 5-acre rural estate lots, equestrian, park, and golf course areas; ■ Construction of Bio Filters (shallow depressions) between upland areas and wetlands within the Meadows community areas to protect water quality; ■ Construction of wildlife travel corridors (in culverts) beneath roadways where wetlands are located near roads; ■ Placement of fencing around wetlands during construction; ■ Placement of public awareness signs with information on Wetlands throughout Bickford Ranch; and ■ Dedication of some open space areas to Placer County, and maintenance of the other common open space areas by the Homeowners Association. 						
<p>B-G: Conduct pre-construction surveys for special-status plants</p> <p>Before construction, the Applicant will hire a County-approved botanist to survey oak woodlands within all proposed construction areas for big-scale balsamroot. In all areas of oak woodland that will be graded, a survey should be conducted between March and May for big-scale balsamroot. If no special-status plants are identified within construction areas, no further mitigation is required. However, if one or more populations are found within proposed construction areas, the Applicant will implement measures to be developed in coordination with the CDFG to avoid the population, minimize impacts on the population, and/or compensate for removal of the population. Potential compensation measures may include avoidance of populations, where feasible; minimization of impacts on populations; purchase and preservation of another known population of the affected species; or attempts to transplant the species to an undisturbed area within the project site.</p>	Applicant	Planning Department	Prior to construction	Once per construction work package	Special-status plants are avoided, or compensation approved by CDFG is implemented	Applicant
<p>B-H: Compensate for loss of vernal pool fairy shrimp habitat</p> <p>The Applicant will compensate for direct effects on vernal pool fairy shrimp habitat associated with the project. This compensation will be achieved by implementation of one or a combination of the following measures, as described in the programmatic agreement between USFWS and the Corps (USFWS, 1995):</p>	Applicant	Planning Department	Prior to approval of grading permit	Once (for verification of purchase of credits); annually for 5 years (for created habitat)	Compensation is provided for loss of vernal pool fairy shrimp habitat	Applicant

MITIGATION MEASURES REQUIRING ONGOING MONITORING

Mitigation Measure	Individual Responsible for Monitoring and/or Reporting	Individual or Organization Responsible for Verifying Compliance	Timing of Initial Action	Frequency and Duration of Monitoring	Performance Criteria	Proposed Funding
<ul style="list-style-type: none"> ■ Create suitable habitat for vernal pool fairy shrimp at a 1:1 ratio, for a total of 0.23 acre of vernal pool habitat. ■ Preserve suitable vernal pool fairy shrimp habitat at a 2:1 ratio, for a total of 0.46 acre of vernal pool habitat. The Applicant will purchase suitable vernal pool habitat credits at an off-site wetlands mitigation bank approved by Placer County. ■ Obtain authorization from USFWS to take listed fairy shrimp species that would be affected by the project. A biological opinion under the federal ESA is required from the USFWS before construction begins. <p>The mitigation credits purchased for the fairy shrimp impacts will apply to the vernal pool impacts, and no additional wetland credits will need to be purchased for the vernal pool impacts.</p>						
<p>B-I: Protect VELB habitat (elderberry shrubs) during construction</p> <p>For elderberry shrubs that will not be removed or damaged by the project, the Applicant will protect elderberry shrubs from inadvertent harm during construction as described in the USFWS's VELB mitigation guidelines. The Applicant will:</p> <ul style="list-style-type: none"> ■ Fence and flag all areas to be avoided with a minimum setback of at least 20 feet from the dripline of each elderberry plant. ■ Brief contractors on the need to avoid damaging elderberry plants and the possible penalties for not complying with these requirements. ■ Install signs every 50 feet along the edge of the avoidance areas with the following information, "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." The signs should be clearly readable from a distance of 20 feet and must be maintained for the duration of construction. ■ Restore the disturbed area to its original condition. Provide erosion control and revegetate with appropriate plant species, if needed. ■ The Applicant will provide a written description of how the core and buffer avoidance areas are to be restored, protected, and maintained after construction is completed. 	Applicant	Planning Department	Prior to approval of grading permit	Weekly during construction; quarterly after restoration for 1 year	VELB habitat is protected, and disturbed area is restored	Applicant

Mitigation Monitoring Program (MMP)

MITIGATION MEASURES REQUIRING ONGOING MONITORING						
Mitigation Measure	Individual Responsible for Monitoring and/or Reporting	Individual or Organization Responsible for Verifying Compliance	Timing of Initial Action	Frequency and Duration of Monitoring	Performance Criteria	Proposed Funding
<p>B-J: Compensate for loss of VELB habitat (elderberry shrubs)</p> <p>The Applicant will compensate for direct effects on VELB habitat associated with the project. This compensation will be achieved by implementation of the following measures, as described in the programmatic agreement between USFWS and the Corps (1996):</p> <ul style="list-style-type: none"> Confirm the number of elderberry stems one inch or greater at ground level that would be affected by the project. Any elderberry shrub that has stems of at least one inch at ground level, and the project will permanently encroach within 100 feet of the shrub dripline, will be considered a removed shrub and will need to be compensated for. Determine the VELB units that would need to be mitigated for the project pursuant to the programmatic agreement between USFWS and the Corps. Compensate for the loss of VELB habitat determined above at an off-site location approved by the USFWS and the Corps. Obtain authorization from USFWS to take VELB that would be affected by the project. A biological opinion under the federal ESA is required from the USFWS before construction begins. All elderberry shrubs removed for construction will be transplanted to a suitable mitigation area on-site according to the protocol set forth in the programmatic agreement between USFWS and the Corps (1996). The mitigation area will provide at least 1,800 square feet for each transplanted shrub. The mitigation area will not be disturbed by future development or maintenance other than that needed to sustain the transplanted shrubs. The shrubs will be transplanted between November and February, when the plants are dormant and have lost their leaves. A biological monitor will oversee the transplanting process to ensure no unauthorized take of VELB occurs. Monitoring will be required for five years. A minimum survival rate of 60 percent is normally required when transplanted shrubs are moved to a mitigation site that also contains new plantings of elderberry and associated species. An individual survival requirement for a mitigation site containing only transplanted shrubs may need to be developed with the County. Provide additional on-site compensation by planting elderberry plants at a ratio of 2:1 for affected elderberry stems. Elderberry plants will be placed within proposed oak tree planting areas. Plantings should be located in areas that will not be disturbed by future development or maintenance. 	Applicant	Planning Department	Prior to approval of grading permit	Daily during transplanting activities; then annually for five years	Compensation is provided for loss of VELB habitat off site; 60% survival rate for VELB transplanted on site, or as negotiated with County	Applicant

MITIGATION MEASURES REQUIRING ONGOING MONITORING

Mitigation Measure	Individual Responsible for Monitoring and/or Reporting	Individual or Organization Responsible for Verifying Compliance	Timing of Initial Action	Frequency and Duration of Monitoring	Performance Criteria	Proposed Funding
B-L: Conduct preconstruction surveys for nesting raptors in affected areas Before construction of any phase of the project between March and August in oak woodlands or riparian habitats, the project proponent will conduct preconstruction surveys to determine if nesting raptors (e.g., red-tailed hawks, red-shouldered hawks, and Cooper's hawks) are present on or near (within 500 feet) construction areas. If no nesting raptors are found, no additional mitigation will be need for that portion of the project. If these surveys detect nesting raptors on or near construction areas, a buffer zone will need to be established (see Mitigation Measure B-M). If construction will occur outside of the nesting season (August through February), no preconstruction raptor nesting surveys are necessary.	Applicant	Planning Department	Prior to construction	Once per construction work package for construction occurring between March and August	Impacts to nesting raptors are avoided	Applicant
B-M: Develop buffer zones around nesting raptors during construction. If nesting raptors are found on or near active construction areas, a no-disturbance buffer zone will be established until nesting activity or construction activity is completed. The distance and placement of the buffer area will be determined in consultation with CDFG. Typically, buffer zones consist of a 500-foot radius area around the nest tree. If construction will occur outside of the raptor nesting season (September – February), no raptor surveys are required.	Applicant	Planning Department	Prior to construction	Weekly during construction	Impacts to nesting raptors are avoided	Applicant
B-O: Obtain and implement conditions of state and federal permits for impacts on waters of the United States The Applicant will obtain and implement all conditions in the following permits: <ul style="list-style-type: none"> ■ Section 404 permit from the Corps for fill of waters of the United States, including wetlands (the project would likely qualify for approval under the Nationwide Permit Program). Compliance with Section 106 of the National Historic Preservation Act and with the federal ESA. To comply with Section 106, the Corps will obtain concurrence from the State Historic Preservation Officer that the project will have no effect on any historic property. Compliance with the federal ESA may require consultation with the USFWS under Section 7 of the act, which will result in completion of a biological opinion for all listed species affected by the project. ■ Section 401 water quality waiver or certification from the Regional Water Quality Control Board. ■ Section 1601 Streambed Alteration Agreement from CDFG. 	Applicant	Planning Department	Prior to approval of grading permit	Per federal and state permits	Compliance with conditions of state and federal permits	Applicant

Mitigation Monitoring Program (MMP)

MITIGATION MEASURES REQUIRING ONGOING MONITORING						
Mitigation Measure	Individual Responsible for Monitoring and/or Reporting	Individual or Organization Responsible for Verifying Compliance	Timing of Initial Action	Frequency and Duration of Monitoring	Performance Criteria	Proposed Funding
<p>B-P: Protect wetlands during construction</p> <p>To minimize indirect impacts on jurisdictional waters of the United States that are connected to, but outside of, the project area, the Applicant will implement the following:</p> <ul style="list-style-type: none"> ■ Identify waters of the United States in the project area by fencing before construction activity. Fencing of wetlands within the Meadows community area will be placed to keep all construction equipment out of the wetlands during excavation of the lakes and grading of the Bio Filters. ■ Avoid sidecasting material into or near the stream channels and wetlands adjacent to project construction. ■ Grade drainage beds and banks of waters of the United States that are temporarily disturbed during construction to the preconstruction contours and replace the top 12 inches of soil and plant material. 	Applicant	Planning Department	Prior to construction	Weekly during construction (to ensure fencing stays up); daily during activity adjacent to fencing	Wetlands are protected	Applicant
<p>B-R: Avoid removal of blackberry riparian vegetation</p> <p>The Applicant will avoid removal of blackberry shrubs in creeks and other drainages in the Bickford Ranch Plan Area. Avoiding removal of blackberry shrubs is necessary for the protection of riparian wildlife habitat, stream water quality, and potential California red-legged frog habitat.</p>	Applicant	Planning Department	Prior to approval of grading plans and approval of fuel modification plans	Annually	Blackberry shrubs in creeks and other drainages are protected	Applicant
Cultural and Archaeological Resources						
<p>C-E: Immediately stop ground disturbing activities in vicinity and consult qualified professional archaeologist, the Placer County Planning Department, and Department of Museums if buried cultural deposits are discovered during construction. If the discovery includes human remains then the Placer County Coroner and Native American Heritage Commission must also be contacted</p> <p>In the event of the discovery of buried archaeological artifacts, exotic rock (non-native), or unusual amounts of shell or bone it is recommended that project activities in the vicinity of the find be immediately stopped and a qualified professional archaeologist consulted to assess the resource and provide proper management recommendations. In addition the Placer County Planning Department and Department of Museums must also be contacted. Such recommendations for important resources could include resource avoidance (Mitigation Measure C-A), capping (Mitigation Measure C-B), or data recovery excavations (Mitigation Measure C-C). Work in the area may only proceed after authorization is granted by the Placer County Planning Department.</p>	Applicant	Planning Department	During construction	At least weekly during construction; submit weekly reports to Planning Department	Cultural and archaeological resources are protected, or loss is compensated	Applicant

MITIGATION MEASURES REQUIRING ONGOING MONITORING						
Mitigation Measure	Individual Responsible for Monitoring and/or Reporting	Individual or Organization Responsible for Verifying Compliance	Timing of Initial Action	Frequency and Duration of Monitoring	Performance Criteria	Proposed Funding
<p>C-F: Retain a qualified professional paleontologist to conduct weekly inspections during grading activities and salvage fossils as necessary</p> <p>Placer County requires that the Applicant retain a professional paleontologist to implement a plan for managing paleontological resources, monitor grading activities, and salvage fossils as necessary. A paleontological report produced for the Proposed Project (Noble 1997) recommends that given the low probability of encountering paleontological resources on the Bickford ranch, weekly inspections by a qualified professional paleontologist during grading activities shall be sufficient to manage these unique resources. The Applicant shall, however, provide written evidence to the Placer County Planning Department that a qualified paleontologist has been retained to provide the required services.</p>	Applicant	Planning Department	During grading activities	At least weekly during construction; submit weekly reports to Planning Department	Paleontological resources are protected and/or salvaged	Applicant